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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/587,103 | 06/02/2000 | Paul E. Burton | 2000B027 | 6140 |

7590

07/16/2002

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EXAMINER

MANOHARAN, VIRGINIA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1764

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DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/587,103

Applicant(s)

BURTON ET AL

Examiner

Virginia Manoharan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claims 7, 10-11 and 20 are rejected for the same reasons as set forth at section (a), page 2 of the previous Office action.

Whether one can ascertain the concentration of the IPA or one can define the term "ultradry", as argued, is not persuasive because one cannot ascertain the range of specific activity covered by the claimed term "at least about 99.9 wt%".

One cannot also determine the specific % by weight of the feed based simply on the argued purity of the IPA in the product. Deleting either "at least" or "about" in the above term obviates this rejection

- b. Claim 1 is rejected for the same reasons as set forth at section(b), page 2 of the previous Office action. However, applicants cannot read limitations only set forth in the description into the claims.

The claims should be able to stand by themselves. As recited, claim 1(b) and (c) provide for confusion and inconsistency. The feed is fed into a separation column for separation, however, the overhead, bottoms and side stream all contain IPA (which would presuppose that no separation occur at all) such that no difference is seen among the IPA withdrawn at different withdrawal points. [It is also noted that step c recites two different alternative withdrawal points for the IPA].

The overhead and bottoms product are also considered "high purity" or purified since they are supposedly separated from other components.

c. Claims 9 and 10 are rejected for the same reasons as set forth at sections (d) and (e) page 3 of the previous Office action.

However, a separation column is supposed to separate the feedstream into different overhead and bottoms products. As seen, there's no difference in the overhead and bottoms in terms e.g., of wt% , in kind or in composition as claimed?

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kagiyama et al or Marker with or without Adams et al.

The above references are applied for the same combined reasons as set forth at the paragraph bridging pages 3-4 of the previous Office action.

Applicants' arguments filed February 12, 2002 have been fully considered but they are not persuasive. Applicants following arguments such as: "claim 11 also recites a process for producing high IPA requiring feeding a feed stream comprising at least 99.9 wt% IPA in a separation column, like claim 1. As stated above, clearly none of the cited references disclose or suggest a process with such a feed stream. To the contrary, the feed streams in the cited patents are laden with 10% or more water, as the streams to be treated are waste streams from semiconductor processing. Moreover, none of the cited references disclose or suggest a process for producing a high purity IPA having a metals content less than 1ppb and a water content less than about 100 ppm in a process that employs a single separation column, as recited in claim 11. To the contrary, the process in each cited reference requires multiple purification process, such as, pervaporation and a distillation process (Kagiyama), a distillation, membrane separation and second distillation process (Marker), and a pervaporation and double distillation process (Adams), unlike the claimed invention..." are all not persuasive of patentability for the following

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reasons. But the argued "multiple purification process" of each cited reference is not precluded by the claims recitations of "comprising" which is an all-inclusive term. Nonetheless, applicants contemplate using also a "multiple purification process". In fact, claims 2-7 and 12-17 recite passing the high purity alcohol through a filter. Filtration is a different known unit of operation used for purification or separation purposes.

Furthermore, employing a single separation column is not unobvious nor is it evidence of criticality in the art. Marker for example, shows in Figure 2 a single separation column for the separation of IPA.

Moreover, the argued at least 99.9 wt% IPA "as feed stream and the product IPA produced having a metal content less than 1ppb and a water content less than about 100 ppb are of no patentable moment. By now it well-settled that the starting material and the product obtained maybe new and unobvious, however, "product" does not impart patentability to the process of anyone of the cited references, *supra*. In re Durden et al 226 USPQ 359.

In addition, the argued metal contents and water contents, deemed to be results desired to be achieved in the claimed invention, are obviously recognized in the prior art. Note e.g., col. 7, lines 21-45 of Kagiya and the abstract of Adams.

Furthermore, the knowledge that said metal contents and water contents in IPA separation process is disclose; tells a person that an optimum relative amount exists. The specific range alleged by applicants are deemed to result from experimentation of an obvious nature. Giving claim 1 its broadest reasonable interpretation, the combination of steps of feeding a feed stream, separating and removing the IPA are taught in the applied references above. As noted, applicants fail to delineate parameters, conditions or method/process steps distinguishing

applicants' process in obtaining the claimed results especially since the prior art discloses the broad claimed separation steps above.

Thus, in the absence of anything which may "new" or "unexpected result", a prima facie case of obviousness has been established by the art and has not been rebutted.

Unexpected results must be established by factual evidence. Mere arguments or conclusory statements in the specification, applicants' amendments, or the Brief do not suffice. In re Linder, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1972). In re Wood, 582, F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V Manoharan whose telephone number is 703 308-3844. The examiner can normally be reached on Tues-Fri from 7:30 AM to 6:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marian Knode can be reached on 703 308-4311. The fax phone numbers for the organization where this application or proceeding is assigned are 703 305-7718 for regular communications and 703 308-0651 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.

Examiner Manoharan/ng
July 15, 2002

King
MANOHARAN NG
ART UNIT 1764
7/15/02